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EXAMINER

NGUYEN, SON T

ART UNIT

PAPER NUMBER

3643

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/549,941	JOHNSEN, TORFINN	
	<b>Examiner</b>	<b>Art Unit</b>	
	Son T. Nguyen	3643	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 28 December 2010.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,3-12,14,15,18,20,22,24,26,28,30,32 and 58-70 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-12,14,15,18,20,22,24,26,28,30,32 and 58-70 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**2. Claims 1,3,5,7,8,14,15,18,20,22,24,26,28,30,32,58,60-70 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morgan (6029395 on form PTO-1449) in view of Mankiewicz (6946496).**

For claims 1,3,58, Morgan teaches a mixture in dry-powder form (the mixture initially is in dry-powder form due to the ingredients making up the mixture such as granules, flour, saw dust, etc. (see col. 2, lines 35-37,col. 3,lines 10-38)) for forming a film or membrane (the mixture is a slurry sprayed over soil to form a film or membrane, col. 1,lines 60-61,col. 5,lines 65-67,col. 6,lines 1-30,col. 7,lines 16-24) for treating at least one of a soil surface and/or a soil mass, the mixture comprising the mixture including a basic powder mixture of a water-soluble, dried and ground organic raw material (col. 2,lines 52-65,col. 3,lines 1-20); a thickening agent (col. 3,lines 40-67); and a pigment (col. 5,lines 1-10); wherein at least one component of the mixture in dry-powder form has a sufficient antioxidising effect to ensure that the film or membrane has an antioxidising effect on surroundings soil and air just above ground level (col. 5,lines 1-19); and wherein the powder mixture is saturated with electrons to at least electrical neutrality; and wherein the film or membrane is formed by spreading the

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mixture over the soil surface or by arranging the mixture in the soil mass (col. 1, lines 50-62,col. 6, lines 1-30).

However, Morgan is silent about wherein the powder mixture is saturated with electrons to at least electrical neutrality.

Mankiewicz teaches in the same field of endeavor of soil mixture as Morgan in which Mankiewicz employs electrons in his mixture for affecting the solubilities and availabilities of minerals at varying oxidation and reduction states, and for facilitating anaerobic processes modifying mineral availability as well as pollutant removal capacity, wherein the powder mixture is oversaturated with electrons and has an excess of negative electric charges (col. 7,lines 40-60). It would have been obvious to one having ordinary skill in the art at the time the invention was made to saturate or oversaturate the mixture of Morgan with electrons to at least electrical neutrality or in excess of negative electric charges as taught by Mankiewicz in order to affect the solubilities and availabilities of minerals at varying oxidation and reduction states, and to facilitate anaerobic processes modifying mineral availability as well as pollutant removal capacity.

For claim 5, Morgan as modified by Mankiewicz teaches a wide range of formulations with various ingredients in the mixture can be combined with different concentration (col. 4,lines 1-39 of Morgan). However, Morgan as modified by Mankiewicz does not specifically states wherein the basic mixture comprises from 1 to 50 parts by weight of organic raw material, 0.1 to 60 parts by weight of thickening agent and from 2-50 parts by weight of pigment. It would have been obvious to one having

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ordinary skill in the art at the time the invention was made to have the basic mixture of Morgan as modified by Mankiewicz comprises from 1 to 50 parts by weight of organic raw material, 0.1 to 60 parts by weight of thickening agent and from 2-50 parts by weight of pigment, depending on the type of plant to which the mixture is applied and depending on how potent or not the user wishes the mixture to be.

For claim 7, Morgan as modified by Mankiewicz teaches wherein the organic raw material is any material originating from the natural environment, the animal or plant kingdom, and that, in a dried and ground state, contains fibres and adhesive compounds so that the material will function as a binder in the resulting film or membrane (col. 2, lines 52-65, col. 3, lines 10-25, 40-67 of Morgan).

For claim 8, Morgan as modified by Mankiewicz teaches wherein the organic raw material comprises substantially natural, industrial or household waste, the waste being organic or biological (col. 2, lines 55-65, col. 3, lines 10-25 of Morgan).

For claims 14, 61, Morgan as modified by Mankiewicz teaches wherein the pigment is a dry powder having light characteristics for forming a film or membrane having a high degree of reflection, the pigment comprising one or more substances selected from the group consisting of stone, lime, sand, clay, chalk, shells, white mineral pigments, titanium oxide, white plant dyes and white plant fibres (col. 3, lines 10-20, col. 5, lines 5-9 of Morgan). However, Morgan as modified by Mankiewicz is silent about the pigments being added in an amount of from 0.1 to 25 parts by weight, or from .1 to 10 parts by weight. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the pigments of Morgan as modified by

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Mankiewicz being added in an amount of from 0.1 to 25 parts by weight, or from .1 to 10 parts by weight, depending on the type of plant to which the mixture is applied and depending on how potent or not the user wishes the mixture to be.

For claims 15,62, Morgan as modified by Mankiewicz teaches wherein the pigment is a dry powder having dark characteristics for forming a film or membrane having a low degree of reflection, the pigment comprising one or more substances selected from the group consisting of ash, coal, soot, carbon black, graphite, elementary carbon, ochre, bone, animal shells, marine shells, fish-scales, mineral pigments, plant dyes, plant pigments, and algae-based components (col. 3,lines 1-7,col. 5,lines 1-19 of Morgan). However, Morgan as modified by Mankiewicz is silent about the pigments being presented in an amount of from 0.1 to 25 parts by weight, or from 0.1 to 10 parts by weight. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the pigments of Morgan as modified by Mankiewicz be added in an amount of from 0.1 to 25 parts by weight, or from 0.1 to 10 parts by weight, depending on the type of plant to which the mixture is applied and depending on how potent or not the user wishes the mixture to be.

For claim 18, Morgan as modified by Mankiewicz teaches wherein the mixture further comprises one or more substances selected from the group consisting of binders (col. 3,lines 40-67 of Morgan), preservatives, fertilizers (col. 3,lines 29-39 of Morgan), water stabilizers, mineral salts, pH regulators (col. 3,lines 35-39 of Morgan), antioxidants (col. 5,lines 9-11 of Morgan) and electrically conductive substances.

For claims 20,63, Morgan as modified by Mankiewicz teaches wherein the binders comprise organic glue and adhesive agents having a high protein content, the organic glue and adhesive agents being one or more substances selected from the group consisting of albumin glue, casein glue, animal glue, agar, alginic acid, ground acorn barnacles, latex and sap (col. 3, lines 40-67 of Morgan). However, Morgan as modified by Mankiewicz is silent about the binders are added in an amount of from 0.1 to 15 parts by weight, or 0.1 to 5 parts by weight. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the binders of Morgan as modified by Mankiewicz be added in an amount of from 0.1 to 15 parts by weight, or 0.1 to 5 parts by weight, depending on the type of plant to which the mixture is applied and depending on how potent or not the user wishes the mixture to be.

For claim 22, Morgan as modified by Mankiewicz teaches wherein the binders further comprise one or more fibres selected from the group consisting of cellulose fibre, plant fibre, textile fibre, animal fibre and reinforcing fibre (col. 2, lines 52-65, col. 3, lines 40-67 of Morgan). However, Morgan as modified by Mankiewicz is silent about the fibre materials are present in an amount of from 0.5 to 30 parts by weight. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the fibre materials of Morgan as modified by Mankiewicz be added in an amount of from 0.5 to 30 parts by weight, depending on the type of plant to which the mixture is applied and depending on how potent or not the user wishes the mixture to be.

For claims 24,64,65, Morgan as modified by Mankiewicz teaches wherein the fertilizer agents comprise one or more fertilizers selected from the group consisting of

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animal manure, fish guano, guano, urea, inorganic nutrient salts and micronutrients (col. 3, lines 29-39 of Morgan). However, Morgan as modified by Mankiewicz is silent about the fertilizer materials are present in an amount of from 0.1 to 20, or 0.1 to 15, or 0.1 to 5 parts by weight of dry powder. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the fertilizer materials of Morgan as modified by Mankiewicz be added in an amount of from 0.1 to 20, or 0.1 to 15, or 0.1 to 5 parts by weight of dry powder, depending on the type of plant to which the mixture is applied and depending on how potent or not the user wishes the mixture to be.

For claims 26, 66, Morgan as modified by Mankiewicz teaches wherein the electrically conductive additives comprise one or more substances selected from the group consisting of readily soluble mineral salts, ash, and carbon fibres (col. 4, lines 5-10, col. 6, lines 1-10 of Mankiewicz). However, Morgan as modified by Mankiewicz is silent about the electrically conductive substances are being present in an amount of from 0.1 to 15 or 0.1 to 5 parts by weight of dry powder. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the electrically conductive substances of Morgan as modified by Mankiewicz be added in an amount of from 0.1 to 15, or 0.1 to 5 parts by weight of dry powder, depending on the type of plant to which the mixture is applied and depending on how potent or not the user wishes the mixture to be.

For claims 28, 67, 68, Morgan as modified by Mankiewicz teaches wherein the water stabilizers comprise one or more substances selected from the group consisting of plant oils, mucilage, organic waxes and organic oils (col. 3, lines 51-52, col. 4, line 58



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of Morgan). However, Morgan as modified by Mankiewicz is silent about the water stabilizers are present in an amount of from 0.1 to 8.0, or from 0.1 to 25, or from 0.1 to 5 parts by weight of dry powder. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the water stabilizers of Morgan as modified by Mankiewicz be added in an amount of from 0.1 to 8.0, or from 0.1 to 25, or from 0.1 to 5 parts by weight of dry powder, depending on the type of plant to which the mixture is applied and depending on how potent or not the user wishes the mixture to be.

For claims 30 & 69, Morgan as modified by Mankiewicz teaches wherein the pH regulators comprise one of more substances selected from the group consisting of sap, basic minerals, ash, and salts of the alkaline and alkaline earth metals (col. 3, lines 30-39 of Morgan). However, Morgan as modified by Mankiewicz is silent about the pH regulator is present in an amount of from 0.1 to 50, or from 0.1 to 10. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the pH regulator of Morgan as modified by Mankiewicz be added in an amount of from 0.1 to 50, or from 0.1 to 10, depending on the type of plant to which the mixture is applied and depending on how potent or not the user wishes the mixture to be.

For claims 32 & 70, Morgan as modified by Mankiewicz is silent about wherein the pH regulators are added in such quantity that the resulting membrane or film has a pH that is greater than 5, or in the range of pH 5 to 10. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the pH regulators of Morgan as modified by Mankiewicz be added in such quantity that the

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resulting membrane or film has a pH that is greater than 5, or in the range of pH 5 to 10, depending on the type of plant to which the mixture is applied and depending on how potent or not the user wishes the mixture to be.

For claim 60, Morgan as modified by Mankiewicz teaches wherein the white plant fibers are one or more substances selected from the group consisting of cotton, bog cotton or algae based components (col. 3, lines 1-7, col. 5, lines 1-19 of Morgan).

**3. Claims 4,6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morgan as modified by Mankiewicz as applied to claim 1 above, and further in view of Wake et al. (JP2195830).**

Morgan as modified by Mankiewicz is silent about wherein the basic powder mixture includes a growth medium for microalgae, and wherein the basic mixture contains from 0.1 to 10 parts by weight of microalgae.

Wake et al. teach in the same field of endeavor of soil mixture as Morgan in which Wake et al. employs microalgae in their mixture to promote germination (see Abstract). It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ microalgae as taught by Wake et al. in the mixture of Morgan as modified by Mankiewicz in order to promote germination.

Morgan as modified by Mankiewicz and Wake et al. is silent about wherein the basic mixture contains from 0.1 to 10 parts by weight of microalgae. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the basic mixture of Morgan as modified by Mankiewicz and Wake et al. containing from 0.1 to 10 parts by weight of microalgae, depending on the type of plant

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to which the mixture is applied and depending on how potent or not the user wishes the mixture to be.

**4. Claims 9,10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morgan as modified by Mankiewicz as applied to claims 1,7,8 above, and further in view of Chiaffredo et al. (5441877).**

For claim 9, Morgan as modified by Mankiewicz is silent about wherein the waste is vegetable debris that is at least one of dried and ground seaweed, sea grass or kelp, and that 3 to 6 parts by weight thereof are used in the mixture.

Chiaffredo et al. teach in the same field of endeavor of soil mixture as Morgan in which Chiaffredo et al. employ seaweed in their mixture because seaweed is rich in organic matter for nutrients (col. 5, line 27). It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ seaweed as taught by Chiaffredo et al. in the mixture of Morgan as modified by Mankiewicz because seaweed is rich in nutrients which will enhance plant growth.

Morgan as modified by Mankiewicz and Chiaffredo et al. is silent about 3 to 6 parts by weight of seaweed is used in the basic mixture. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the seaweed of Morgan as modified by Mankiewicz and Chiaffredo et al. be added 3 to 6 parts by weight of seaweed is used in the basic mixture, depending on the type of plant to which the mixture is applied and depending on how potent or not the user wishes the mixture to be.

For claim 10, Morgan as modified by Mankiewicz and Chiaffredo et al. is silent about employing sea grass comprises at least one of the species *Spartina* or reeds, instead of seaweed. It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ sea grass instead of the seaweed of Morgan as modified by Mankiewicz and Chiaffredo et al., depending on the type of plant to which the mixture is applied and depending on how potent or not the user wishes the mixture to be.

**5. Claims 11,12 & 59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morgan as modified by Mankiewicz as applied to claim 1 above, and further in view of Wallace et al. (4797145).**

For claim 11, Morgan as modified by Mankiewicz is silent about wherein the thickening agent is xanthan or xanthan gum, the xanthan or xanthan gum being present in an amount of from 0.1 to 6 parts by weight.

Wallace et al. teach in the same field of endeavor of soil mixture as Morgan in which Wallace et al. employ xanthan gum in their mixture for thickening agent (col. 5, lines 5-15). It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ xanthan gum as taught by Wallace et al. for the thickening agent in the mixture of Morgan as modified by Mankiewicz, depending on the type of plant to which the mixture is applied and depending on how potent or not the user wishes the mixture to be.

For claims 12,59, Morgan as modified by Mankiewicz is silent about wherein the thickening agent comprises one or more alginates, the alginates being admixed and replacing at least part or all of the xanthan or xanthan gum.

In addition to the above, Wallace et al. also teach alginates admixed together or not with xanthan gum (col. 5, lines 5-15). It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ alginates together with or without xanthan gum as taught by Wallace et al. for the thickening agent in the mixture of Morgan as modified by Mankiewicz, depending on the type of plant to which the mixture is applied and depending on how potent or not the user wishes the mixture to be.

### ***Response to Arguments***

6. Applicant's arguments filed 12/28/2010 have been fully considered but they are not persuasive.

**Applicant argued that the foamed slurries described by Morgan for preparing a mulch mat are not a mixture in dry-powder form according to the presently claimed invention. Furthermore, Morgan describes the slurries for forming the mulch mat of his invention "tend to be stable and can be stored for extended periods." See Morgan at column 4, lines 29-31. Clearly, Morgan does not disclose a mixture in dry-powder form for forming a film or membrane according to the presently claimed invention.**

As stated above, the mixture initially is in dry-powder form due to the ingredients making up the mixture such as granules, flour, saw dust, etc. (see col. 2, lines 35-

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37,col. 3,lines 10-38). Then water or other aqueous medium is added to make the mixture into a slurry for easy application. This is similar to applicant as discloses in paragraph [0051] of applicant's pgpub 2006/0257213. Thus, clearly, Morgan does teach a mixture in dry-powder form.

**Applicant argued that Morgan fails to teach or suggest a mixture in dry-powder that includes at least one component having a sufficient antioxidising effect to ensure that a formed film or membrane has an antioxidising effect on the surroundings according to claims 1 and 58. Instead, Morgan discloses the use of an anti-oxidising compound that may be added to aqueous foam in order to increase the UV-light resistance of the mulch mat itself. See Morgan at column 5, lines 1-5. As such Morgan makes no suggestion regarding the use of antioxidants in sufficient amounts to produce an antioxidising effect on the surrounding environment.**

If Morgan teaches an antioxidizing compound, then it is inherent that it would have a sufficient antioxidizing effect in the surround. Why would Morgan include antioxidizing compound if antioxidizing effect is not a consideration? In addition, Morgan teaches similar ingredients making up the mixture, thus, it is implicitly taught that if Morgan includes an antioxidizing compound, then the mixture would have a sufficient antioxidizing effect.

**Applicant argued that Morgan fails to disclose or suggest a mixture for forming a film or membrane wherein at least a portion of the film or membrane is**

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**formed at some distance down in the soil mass when the mixture is spread over the soil surface, arranged in the soil mass, or both, as specified in claim 58.**

Clearly, Morgan's mixture is not to remain floating on the top surface of the soil, especially being sprayed as a slurry. In addition, the mixture of Morgan is supposed to provide a medium for rooting seeds, thus, this clearly shows that the Morgan mixture will formed at some distance down in the soil mass. Moreover, what is "some" distance?

**Applicant argued that the outstanding Office Action apparently relies upon Mankiewicz for the disclosure of negative electric charges at column 7, lines 40-60. It is not seen where this portion of Mankiewicz actually discloses or suggests saturating a powder mixture with electrons to at least electrical neutrality according to the presently claimed invention.**

As stated above, Morgan teaches a dry-powder mixture. Mankiewicz teaches the electrons, thus, when combining Morgan with Mankiewicz, the combination will teach the mixture being saturated with the electrons.

**Applicant argued that Mankiewicz fails to suggest modifying Morgan to provide a mixture that can form a film or membrane at some distance down in the soil mass when the mixture is spread over the soil surface, arranged in the soil mass, or both.**

Mankiewicz was not relied on for a mixture forming at some distance down in the soil mass, thus, the argument is mooted.

**Applicant stated that it is understood that Wake et al. is actually JP 2195830. If the Examiner is referring to a different reference, it is requested that the Examiner clarify the rejection.**

JP 2195830 is the same as JP402195830. JP402195830 is the patent number, while JP2195830 is the document identifier.

**Applicant argued that Wake et al. fail to suggest modifying Morgan to provide a mixture that is saturated with electrons to at least electrical neutrality according to the presently claimed invention. Furthermore, Wake et al. would not have suggested modifying the mulch mat formed in an aqueous foam according to Morgan to achieve a mixture in dry-powder form according to the presently claimed invention. Furthermore, Wake et al. would not have suggested modifying Morgan to provide a mixture for forming a film or membrane wherein at least a portion of the film or membrane is formed at some distance down according to the presently claimed invention.**

Wake et al. were not relied on for the limitation as argued above, thus, the argument is mooted. Wake et al. were relied on for microalgae in their mixture to promote germination (see Abstract).

**Applicant argued that Chiaffredo et al. fail to suggest modifying Morgan to provide a mixture that is saturated with electrons to at least electrical neutrality according to the presently claimed invention. Furthermore, Chiaffredo et al. would not have suggested modifying the mulch mat formed in an aqueous foam according to Morgan to achieve a mixture in dry-powder form according to the**



**presently claimed invention. Furthermore, Chiaffredo et al. would not have suggested modifying Morgan to provide a mixture in dry-powder form wherein at least a portion of the film or membrane is formed at some distance down according to the presently claimed invention.**

Chiaffredo et al. were not relied on for the limitation as argued above, thus, the argument is mooted. Chiaffredo et al. were relied on for seaweed in their mixture because seaweed is rich in organic matter for nutrients (col. 5, line 27).

**Applicant argued that Wallace et al. fail to suggest modifying Morgan to provide a mixture that is saturated with electrons to at least electrical neutrality according to the presently claimed invention. Furthermore, Wallace et al. would not have suggested modifying the mulch mat formed in an aqueous foam according to Morgan to achieve a mixture in dry-powder form according to the presently claimed invention. Furthermore, Wallace et al. would not have suggested modifying Morgan to provide a mixture in dry-powder form for forming a film or membrane wherein at least a portion of the film or membrane is formed at some distance down according to the presently claimed invention.**

Wallace et al. were not relied on for the limitation as argued above, thus, the argument is mooted. Wallace et al. were relied on for xanthan gum in their mixture for thickening agent (col. 5, lines 5-15).

### ***Conclusion***

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Son T. Nguyen whose telephone number is 571-272-6889. The examiner can normally be reached on Mon-Thu from 10:00am to 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter M. Poon can be reached on 571-272-6891. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Son T. Nguyen/  
Primary Examiner, Art Unit 3643